640 EMERGENCY BILLS

640.1 GENERAL EMERGENCY BILL

a. PURPOSE. The purpose of this bill is to provide an organization, prescribe procedures, and assign responsibilities for controlling the effects of a major emergency or disaster suffered by the ship (such as collision; grounding; internal and external explosion; chemical, biological, or radiological (CBR) contamination; earthquake; storm; or battle damage). It further provides for the orderly and controlled exit of personnel if abandoning ship is required and for salvage of the ship if feasible. The Damage Control organization is necessarily an integral part of the Engineering Department organization; however, each department aboard ship has major administrative responsibilities in damage control. Every officer and enlisted person must be familiar with Damage Control organization and his/her part in the common responsibility of all hands in it. More detailed procedures are contained in NWP 62-1 (Rev C), Surface Ship Survivability (NOTAL); NWP 28E, Nuclear Warfare Operations (NOTAL); Navy Ship's Technical Manual Chapter 470, Shipboard BW/CW Defense and Countermeasures (NOTAL); and The Repair Party Manual (COMNAVSURFLANTINST 3541.1C or COMNAVSURFPACINST 3541.1B) (NOTAL). These publications should be used when conducting training in handling emergencies to ensure that all personnel are well versed in the proper steps to control emergencies.

b. RESPONSIBILITY FOR THE BILL. The Engineer Officer is responsible for ensuring that this bill is current and ready for execution.

c. TRAINING. The training program to prepare for emergencies must be a long-range continuing program for the entire ship's company.

(1) Formal shore-based schools shall train personnel in fire fighting, basic damage control procedure, and NBC defense.

(2) All officers and leading petty officers will train their personnel in the fundamentals of controlling the effects of any emergency.

(3) In major catastrophes, personnel trained in first-aid procedures will drastically reduce the number of serious casualties and fatalities. The Medical Officer (or the senior hospital corpsman when no medical officer is assigned) will provide training for all hands in first-aid procedures, including measures necessary in CBR defense.

(4) Division officers shall train their personnel in the use of individual protective equipment and the performance of their duties while wearing the gas mask and protective clothing.

(5) General emergency drills shall be held as ordered by the Executive Officer (but generally not less than once each month). During drills the actions and duties prescribed in this and supplemental bills shall be fully carried out except as modified by the Commanding Officer. Efforts by all hands to provide maximum realism to each drill will significantly increase the training value of drills and must be encouraged.

d. INFORMATION. This bill uses the established battle organization to provide optimum damage control and personnel discipline before, during, and after an emergency situation. Since the circumstances of any particular emergency are unpredictable, detailed plans cannot provide for all emergency situations. Therefore, this bill is intended to guide the action by key personnel in emergency situations. The responsibilities described are not all-inclusive but do establish areas of control within the bill. Officers and petty officers must exercise initiative and judgement in their responsibilities to effectively meet and control an emergency situation. Should personnel designated for certain responsibilities become casualties, unassigned officers shall be designated by the senior officer on the scene to assume these responsibilities and complete the action outlined in this bill.

The general provisions of this bill are effective whether underway or in port. This bill shall be placed in effect in the event of fire or other emergency which may present a danger to the ship.

Because of the diversity of emergency situations, more detailed procedures and responsibilities are described under the following categories.

(1) Emergency with full crew on board.

(2) In port general with partial crew on board.

(3) CBR attack.

(4) Abandon ship - securing and/or salvage.

e. PROCEDURES AND RESPONSIBILITIES DURING EMERGENCY WITH FULL CREW ON BOARD. When the full or nearly full crew is on board and a situation develops which suddenly causes or which may cause damage to the ship, the general alarm shall be sounded.

This applies whether the ship is underway or in port. The general alarm may be ordered by the Commanding Officer or the Officer of the Deck, and the word "General Quarters, all hands man your battle stations" shall be passed over all circuits of the general announcing system. Additional information on the emergency shall be passed on the general announcing system as soon as possible. Individual responsibilities for specific action in time of emergency apply. In the absence of key personnel, their functions will be performed by their reliefs or assistants. The following procedures apply when the general alarm is sounded:

(1) All hands will man assigned battle stations expeditiously. Repair parties will set condition ZEBRA and, if directed, close the gas-tight envelope.

(2) Personnel who cannot man their battle stations because of damage or fire shall remain near assigned stations and assist the repair parties as directed.

(a) THE EXECUTIVE OFFICER shall:

1. Under the direction of the Commanding Officer, coordinate all orders.

(b) THE OPERATIONS OFFICER shall:

1. Plot radioactive clouds and fall-out areas, and recommend course changes to avoid contaminated sea areas.

2. Ensure the proper dissemination of aerological data.

3. Be prepared to assist in conning the ship from CIC.

4. Coordinate the destruction of classified material as ordered by the Commanding Officer.

(c) THE ENGINEER OFFICER shall:

1. Keep the Commanding Officer informed on the state of damage in the engineering department pertaining to main propulsion machinery, boilers, and ship's speed available. Make preparations for maximum speed underway.

2. Coordinate all action to control, minimize, and repair damage in the machinery spaces.

3. Direct salvage operations.

4. Be responsible for training the securing and salvage details.

5. In the event of possible CBR contamination or sudden shock, secure the evaporators.

6. Direct the operation of all machinery (such as fire and bilge pumps) that provides support to the Damage Control Assistant (DCA).

7. Control electrical circuit usage to prevent further damage.

(d) THE DCA shall:

1. Directly supervise all damage control parties from Damage Control Central.

2. Take action to minimize the damage and maintain the seaworthiness of the ship.

3. Assist the Engineer Officer in salvage operations.

4. Assist the Executive Officer and the Engineer Officer in organizing and training personnel for controlling emergencies.

5. Be the ship's CBR officer.

6. Be responsible for identifying the chemical warfare (CW) agents and collecting biological warfare (BW) samples.

7. Be responsible for identifying and isolating contaminated and other hazardous areas.

8. Establish exposure times for personnel manning stations in contaminated areas, and determine when areas are, or will be safe for reentry.

9. Ensure setting of proper material condition, and activate the washdown system when ordered.

10. Read and develop casualty dosimeters and film badges and record personnel dosages.

11. Make available to division officers the dosage records of their personnel and advise the medical officer/ representative of all dosages exceeding tolerances.

(e) THE WEAPONS OFFICER (OR COMBAT SYSTEMS OFFICER) shall:

1. Provide for sprinkling of magazines upon orders from the Commanding Officer.

2. Safeguard explosives and weapons not in magazines.

3. Be prepared for salvage, rescue, and towing operations.

(f) THE FIRST LIEUTENANT shall:

1. Be prepared for salvage, rescue, and towing operations.

2. Supervise the formulation and execution of plans for the rigging of lines and cargo nets when "Prepare to abandon ship" is ordered.

3. Ensure that boats and life rafts are properly equipped. (See Tables 6-7 and 6-8) for a listing of this equipment). Equipment is listed on an allowance equipage (AEL) in the ship's COSAL.

4. Prepare for launching boats, life rafts, floats, nets, and other floatable equipment.

5. Supervise distribution of life jackets.

6. Be responsible for maintaining a master life raft and boat personnel assignment list.

7. Provide a diagram to this bill listing capacities and locations of life rafts, boats and abandon ship stations.

8. Provide methods for releasing life rafts.

(g) THE SUPPLY OFFICER shall:

1. Make emergency issues of materials.

2. Be prepared to feed personnel in accordance with the battle messing procedure.

SURVIVAL GEAR [1]

ITEM	QUANTITY
BAILER, PLASTIC 2-QUART CAPACITY	1
BATTERY, DRY, FLASHLIGHT, ALKALINE (SIZE D) [2]	4
DESALTER KITS, TYPE II	5
FISHING KITS, SURVIVAL	1
FLASHLIGHT, TYPE II, STYLE 1	1
FLASHLIGHT BULBS (PR6)	1
FOOD PACKETS	75 (MK5) 125 (MK6)
KIT, FIRST AID	1
KIT, SIGNALING	1 CARTON OF 12 UNITS
KNIFE POCKET	1
MEASURING CUP, PLASTIC, 8 OUNCE	2
MIRROR, SIGNALING EMERGENCY, TYPE II	1
MOTION SICKNESS TABLETS, DIMENHYDRINATE, 50 MILLIGRAMS	200 (MK 5)
OPENERS, BEER-CAN TYPE	24 (MK 5) 6 (MK 6)
SEA MARKER, FLUORESCEIN, CANISTER TYPE	1
SPONGE, CELLULOSE, TYPE 1, SIZE 10	2
STORAGE BAG, DRINKING WATER, SIZE A	2
WATER, CANNED, 10-OUNCE CANS	50 (MK 5) 75 (MK 6)
WHISTLE, SIGNALING, PLASTIC TYPE II	1

EQUIPMENT TO BE STOWED WITH EACH LIFEBOAT

FLOATABLE KNIFE	1
HAND PUMPS	2
OARS	4
OPERATION AND MAINTENANCE MANUAL	2
RESCUE LINE	1
PLIERS, PAIR	1
SCISSORS	1
SEA ANCHOR AND LINE	2
SEALING CLAMP, 3 INCHES	2
SEALING CLAMP, 5 INCHES	2
SEALING CLAMP, 7-½ INCHES	2
SURVIVAL GEAR BAG	1
VALVE ADAPTER	2

[1] INFLATABLE LIFEBOATS IN RIGID CONTAINERS WILL HAVE THE SURVIVAL GEAR PACKED IN A WATERTIGHT SURVIVAL GEAR BAG PRIOR TO INSTALLATION ABROAD SHIP. INFLATABLE LIFEBOATS IN FABRIC CONTAINERS WILL HAVE THE SURVIVAL GEAR PACKED IN WATERTIGHT BAGS THAT ARE STOWED IN APPROPRIATE POCKETS OF THE LIFEBOAT CONTAINER.

[2] STANDARD D/CELL FLASHLIGHT BATTERIES MAY BE RETAINED IF THE DATE STAMPED ON THE BOTTOM DOES NOT INDICATE AGE IN EXCESS OF ONE YEAR (THAT IS, 0285 INDICATED MONTH (FEBRUARY) AND YEAR (1985)).

Table 6–7. Mark 5 (15–Person Capacity) and Mark 6 (25–Person Capacity) Inflatable Lifeboats

SURVIVIAL GEAR[1, 2]

ITEM	QUANTITY
BAILER, PLASTIC 2-QUART CAPACITY	1
BATTERY, DRY, FLASHLIGHT, ALKALINE (SIZE D)[3]	4
DESALTER KITS, TYPE II	5
FISHING KITS, SURVIVAL	1
FLASHLIGHT, TYPE II, STYLE I	1
FLASHLIGHT BULBS	1
FOOD PACKETS	125
KIT, FIRST AID	1
KIT, SIGNALING	1 CARTON OF 12 UNITS
KNIFE, POCKET	1
MEASURING CUP, PLASTIC, 8 OUNCE	2
MIRROR, SIGNALING EMERGENCY, TYPE II	2
MOTION SICKNESS TABLETS, DIMENHYDRINATE, 50 MILLIGRAM	250
OPENERS, BEER-CAN TYPE	6
PAINTER, 2-INCH CIRC. MANILA OR NYLON, LENGTH 20 FATHOMS	2
PLIERS, PAIR	1
SEA MARKER, FLUORESCEIN, CANISTER TYPE	1
SPONGE, CELLULOSE, TYPE I, SIZE 10	2
STORAGE BAG, DRINKING WATER, SIZE A	2
WATER, CANNED, 10-OUNCE CANS	75
WHISTLE, SIGNALING, PLASTIC TYPE II	1

EQUIPMENT TO BE STOWED WITH EACH ABANDON SHIP BOAT

PADDLES	4
BOAT COVER (RESCUE ORANGE) WITH RIGGING (FOR BOATS NOT HAVING A FIXED CANOPY)	1
SCISSORS	1

[1] SURVIVAL GEAR CARRIED BY ABANDON SHIP BOATS SHALL BE STOWED IN A WATERTIGHT SURVIVAL GEAR BAG AND PLACED IN A WEATHERTIGHT BOX. THE BOX AND PADDLES AND BOAT COVER SHALL BE PLACED ON A BULKHEAD OR DECK ADJACENT TO THE BOAT. A PLASTIC LABEL PLATE WITH THE LEGEND "ABANDON SHIP EQUIPMENT — LOAD INTO BOAT UPON ABANDON SHIP SIGNAL " SHALL BE POSTED ON THE BOX.

[2] ITEMS OF EQUIPAGE DESIGNATED HEREIN SHALL BE PACKAGED IN ACCORDANCE WITH NAVSEA PUBLICATION N.S. 0902-137-7010.

[3] STANDARD D-CELL FLASHLIGHT BATTERIES MAY BE RETAINED IF THE DATE STAMPED ON THE BOTTOM DOES NOT INDICATE AGE IN EXCESS OF ONE YEAR (THAT IS, 0286 INDICATES MONTH (FEBRUARY) AND YEAR (1986).

Table 6-8. Abandon Ship Boats

3. Take all possible precautions to prevent contamination of food supplies and messing equipment.

4. Serve no food or drink following a major emergency, unless approved by the Medical Officer or medical representative.

(h) THE NAVIGATOR shall:

1. Provide the bearing and distance to the nearest land when abandoning ship.

2. Provide boats with pyrotechnic and other signaling equipment.

3. Ensure that necessary navigational equipment, such as a Global Positioning System (GPS) receiver, compasses, sextants, navigation tables, and charts, are provided in one boat prior to abandoning ship. Additional navigational equipment, as available, should be provided in other boats used for abandoning ship.

(i) THE MEDICAL OFFICER/REPRESENTATIVE shall:

1. Supervise planning and direct medical department personnel in the safe and expeditious treatment of patients.

2. Direct the evacuation of the sick and wounded during the abandon ship evolution.

3. Report personnel casualties immediately, including disease symptoms or increase in infection following an emergency.

4. Be responsible for identifying BW agents and aid the DCA in obtaining samples.

5. Inspect the food and water supply as soon as practicable following an emergency, and notify the supply officer of the results.

6. Direct the radiation health program and train assigned personnel.

(j) THE OFFICER OF THE DECK shall:

1. Immediately notify the Commanding Officer or Command Duty Officer.

2. Maneuver the ship as ordered by the Commanding Officer.

3. Pass the word twice concerning the nature of the emergency, and sound other appropriate internal alarms (including the general alarm or collision alarm).

4. Notify ships in the vicinity, the Officer in Tactical Command (OTC), SOPA, and the port authority of the nature of the emergency.

5. Order exposed topside evacuation when directed by the Commanding Officer.

6. Order the operation of the washdown system and the establishment of the gas-tight envelope when CBR attack is imminent or has occurred or when ordered by the Commanding Officer.

(k) THE REPAIR PARTY LEADERS shall:

1. Take all practical measures before damage occurs, such as maintaining watertight and fumetight integrity, removing fire hazards, and maintaining and distributing emergency equipment.

2. Minimize any damage by controlling flooding, preserving stability and buoyancy, combating fire, and providing first-aid treatment of personnel.

3. Accomplish emergency repair or restorations by supplying casualty power, regaining a safe margin of stability and buoyancy, replacing essential structure, and manning essential equipment.

4. Keep the DCA informed of all damage and the progress of repairs.

5. Control traffic within their areas to minimize the spread of contamination.

6. Establish and supervise personnel decontamination facilities as directed by the DCA.

(l) HEADS OF DEPARTMENT shall:

1. Assign qualified personnel within their departments to appropriate emergency stations.

2. Post such assignments on the division watch, quarter, and station bill.

3. Ensure that their departmental personnel are able to carry out the procedures prescribed in this bill.

4. Ensure that all lifesaving equipment under their cognizance is ready for use.

5. Carry out measures applicable to the department, detailing personnel to remove publications, records, or salvageable equipment from the vicinity of damage.

6. Order personnel to augment repair parties as directed by the Commanding Officer.

7. Order personnel away from battle stations where they may be injured, as directed by the Commanding Officer.

8. Direct the removal of injured to first-aid stations or evacuation stations.

(m) DIVISION OFFICERS shall:

1. Assign qualified personnel to duties and stations as required by ship's bills.

2. Ensure that such assignments are posted on the divisional watch, quarter, and station bills.

3. Instruct their division personnel in the procedures prescribed in this bill including survival techniques.

4. Minimize missile hazards by stowing equipment, tools, and supplies.

5. Take all practical measures before damage, such as maintaining of watertight and fumetight integrity, removing of fire hazards, and providing upkeep of emergency equipment.

f. PROCEDURES AND RESPONSIBILITIES DURING IN-PORT GENERAL EMERGENCY WITH PARTIAL CREW ON BOARD. When a partial crew is on board and a situation develops which suddenly causes or which may cause damage to the ship, the appropriate word shall be passed to ensure that the duty section and special casualty teams report to assigned stations. The alarm may be ordered by the Commanding Officer, CDO, or the OOD. Additional information on the emergency shall be passed on the general announcing system as soon as possible. In the event of a power loss, the OOD shall

send the messenger to pass the word at key locations throughout the ship. The following procedures apply when the general alarm is sounded:

(1) All hands in the duty section will man their assigned emergency stations on the double, passing the word enroute.

(2) The primary purpose of initial actions shall be to establish the security of the ship.

Individual responsibilities in time of emergency follow. In the absence of key personnel, their functions will be performed by designated reliefs or assistants.

(a) PERSONNEL ON BOARD BUT NOT IN THE DUTY SECTION shall:

1. When the emergency is within their vicinity, use available equipment to control the emergency pending the arrival of damage control personnel.

2. Set condition ZEBRA in their respective immediate vicinities, and thereafter report to the nearest manned emergency station.

3. When ordered, muster with the duty MAA in assigned location.

4. When ordered, take cover promptly for protection against contamination.

5. Rigidly observe the boundaries of damaged and contaminated areas established by damage control personnel.

6. Carry out duties as may be assigned.

(b) THE OFFICER OF THE DECK shall:

1. Pass the word as set forth in this article.

2. Direct all personnel returning from liberty to the mess deck for assignment.

(c) THE EXECUTIVE OFFICER (or in his absence the CDO) shall assume station in DCC or CCS and shall:

1. Direct the function of the ship's company in general.

2. Redistribute personnel as necessary.

3. Notify ships in the immediate vicinity (adjacent berths or nests), SOPA, and the port authority about the nature of the emergency.

4. Report to the Commanding Officer when emergency stations are manned and condition ZEBRA is set.

5. Report to the Commanding Officer when condition ZEBRA is rechecked and the security search is completed.

6. Order the operation of the washdown system and the establishment of the gas-tight envelope when CBR attack is imminent or has occurred or when ordered by the Commanding Officer.

7. When nested, establish telephone communications with other ships of the nest.

8. Evaluate the nature of the violence, and direct action to be taken if time is critical; otherwise recommend to the Commanding Officer the action to be taken.

9. Keep accurate muster of personnel on board. As the liberty party returns on board and the total number of personnel on board approaches full ship's company, order general quarters and secure personnel from emergency stations.

10. Request outside assistance as directed by the Commanding Officer.

(d) THE FIRE MARSHALL shall proceed directly to the scene of the emergency to direct efforts of the Rapid Response Team. If the emergency is beyond the Rapid Response Team capabilities, the fire Marshall will turn over his duties to the scene leader and assume other duties as directed. These duties may include:

1. Repair Party Leader

2. Supervision and establishment of communications

3. Posting boundaries

4. Direct logistic support

(e) DEPARTMENT DUTY OFFICER shall:

1. Man assigned control stations on the double.

2. Receive the routine "manned and ready" and other required reports from assigned stations.

3. Make required reports to the OOD for the department.

4. Muster those personnel not in the duty station. Detail these personnel to duties as directed by the OOD.

5. Detail personnel to remove publications, records, and so forth from the vicinity of the emergency.

6. Clear unassigned personnel from danger areas.

7. Prepare for getting underway if ordered.

(f) THE DUTY ENGINEER shall:

1. Direct engineering plant operation, including fire and bilge pumps and other auxiliaries to support the DCA.

2. Control electrical circuits usage in the damaged areas to prevent further damage.

3. Provide for damage control within engine spaces by special equipment manned by engineering personnel.

4. Control ventilation in affected parts of the ship.

(g) THE DUTY WEAPONS OFFICER (OR DUTY COMBAT SYSTEMS OFFICER) shall:

1. Provide for sprinkling of magazines upon the order from the CDO.

2. Safeguard gunnery explosives that are not in magazines.

3. Relieve the OOD, and station an armed guard.

(h) THE MEDICAL OFFICER/REPRESENTATIVE shall:

1. Provide for treatment of injured personnel.

2. Assist the DCA in collecting and identifying BW samples.

(i) THE INPORT EMERGENCY DETAIL shall:

1. Upon the sounding of the alarm or receipt of word, proceed either to the area of the emergency to close off the ship, working away from the scene, or to the damage control locker to equip themselves as required and then to the scene.

2. Isolate the damage area, evacuate injured personnel, and control fire and flooding, as directed by the OOD.

g. PROCEDURES AND RESPONSIBILITIES IN THE EVENT OF CBR ATTACK. Paragraphs 640.1.e and 640.1.f apply when the emergency is primarily chemical, biological, or radiological. The instructions in this article are in addition to those previously described duties and responsibilities.

(1) THE COMMANDING OFFICER shall:

(a) Maneuver the ship to avoid contaminating aerosol, spray, mist, or fallout.

(b) Adjust Mission Oriented Protection Posture (MOPP) levels based on threat assessment.

(c) Direct starting and securing of Circle WILLIAM vent systems.

(d) Order topside evacuation if tactically permissible.

(e) Order decontamination of ship and personnel when tactically feasible.

(2) THE DCA shall:

(a) Advise the Commanding Officer concerning BW/CW defense, including management of ventilation systems.

(b) Following a BW/CW attack, the DCA is responsible for:

1. Locating residual hazards (BW/CW contamination) by monitoring detection or sampling procedures, and maintaining a contamination plot in Damage Control Central.

2. Evaluating the residual hazard as to location, extent, duration of personnel dangers, and so forth and thereby

(1) restricting areas not required to be manned: (2) posting personnel hazard warnings; and (3) informing the Commanding Officer and control stations of hazards and measures required for personnel safety.

3. Initial decontamination.

4. Coordinating departmental decontamination.

5. Instituting other procedures to prevent contamination spread.

(c) Designate evacuation and personnel decontamination stations, and post routes thereto for exposed topside general quarters personnel.

(d) Nothing in this article shall be construed as requiring the Damage Control Officer/Assistant to divert attention, equipment, or personnel from the urgent hazards of damage, fire, or flooding which may have occurred during the attack. Efforts to minimize residual effects of BW/CW attack may be carried out in conjunction with - but not impair - efforts to control the immediate hazards of fire, damage, or flooding. This policy, likewise, should not deter individuals from taking immediate self-aid measures following exposure.

(3) INITIAL OR PRECAUTIONARY PROCEDURES APPLICABLE TO ALL TYPES OF BW/CW ATTACK.

(a) Assume appropriate MOPP levels as ordered.

(b) Set condition Circle WILLIAM.

(c) Eliminate contamination hazards.

(d) Exposed personnel - Carry out preliminary adjustments of protective clothing.

(e) Man personnel decontamination stations.

(f) Exposed personnel - Carry out final adjustment of protective clothing.

(g) Wet down topside with washdown or fire hose.

(h) Sound alarm, and pass word specifying type of attack.

(i) Carry out procedures for particular type of attack which is based on the Commanding Officer's evaluation of

the tactical situation and the necessity for controlling structural damage, fire, and flooding.

(4) PROCEDURES IMMEDIATELY FOLLOWING THE ATTACK (applicable to all types of CBR attack).

(a) Evasive maneuvering.

(b) Prompt evacuation and remanning of exposed stations, as ordered.

(c) Decontamination of personnel.

(d) Prompt and accurate detection of contaminated areas.

(e) Start of vital ventilation with intake in clean atmosphere.

(f) Decontamination of material.

(g) Instruct personnel not to eat, drink, smoke, or put hands near face and to wash frequently until given further instructions.

(5) TACTICAL CBR DECONTAMINATION PROCEDURES. Tactical CBR decontamination permits a ship to continue its tactical mission without subjecting personnel to unacceptable exposures. Tactical CBR contamination consists of:

(a) Primary gross decontamination (a salt-water washdown of the entire ship's weather surfaces) is required to protect personnel if the ship is caught in contamination aerosol or cloud. This is done by activating the ship's water washdown system or by hosing down all weather surfaces with the following precautions:

1. Work from the highest weather deck down and from the windward to the leeward.

2. Cover entire area with water.

3. Upon completion of washdown, require that squads go through personnel decontamination stations unless urgently required for additional duties topside. Clean interior may be entered only by way of a personnel decontamination station.

(b) Conduct a detection survey (carried out by detection teams) to locate contaminated areas.

(c) A secondary gross decontamination (by repair party and departmental decontamination squads) follows the detection survey. Exact locations of contaminated areas are decontaminated by detailed methods such as scrubbing, steaming, neutralizing, and so forth concentrating on areas essential for ship's operation. Nonessential areas should be secured until decontaminated.

(6) CBR PERSONNEL DECONTAMINATION PROCEDURES. Since topside personnel are likely to become contaminated during a CW or BW attack, contaminated personnel should pass through decontamination stations as soon as the tactical situation permits. Personnel decontamination is executed in the following sequence:

(a) By functional groups.

(b) Contaminated uninjured.

(c) Contaminated injured (by medical department).

h. PROCEDURES AND RESPONSIBILITIES DURING ABANDON SHIP-SECURING AND SALVAGE. Abandon ship procedures shall be initiated only by the Commanding Officer or senior line officer in command. These procedures are based on the assumption that the crew will be at general quarters under most conditions when the need to abandon ship may arise. The following responsibilities and procedures apply; however, the Commanding Officer shall issue orders for abandon ship according to circumstances. If time permits, phased procedures are initiated. If time does not allow orderly preparation, abbreviated procedures are carried out. For drill purposes, personnel shall be assigned to life rafts and boats nearest their battle stations and shall be mustered periodically at these stations to ensure proper condition of all lifesaving equipment and familiarization with abandon ship procedures.

(1) THE EXECUTIVE OFFICER shall:

(a) Control preparations to abandon ship.

(b) Identify special procedures dictated by conditions such as the side of ship from which to abandon, redistribution of personnel to rafts and boats as a result of damage or loss of lifesaving equipment, and casualties to personnel.

(c) Ensure that all personnel receive the orders to abandon ship.

(d) Receive muster reports from all stations.

(2) OFFICERS IN CHARGE OF DEBARKATION AREAS shall:

(a) Supervise abandon ship preparations in assigned areas, to include taking a muster report of all stations within area of responsibility. Report muster to the Executive Officer.

(b) Control life raft drops and boat lowering in own areas.

(c) Upon orders from the Commanding Officer to prepare to abandon ship, supervise the rigging of nets, ladders, fire hoses, knotted lines, and all other equipment available for leaving the ship.

(d) Ensure that personnel in assigned areas are properly dressed and equipped for abandoning ship.

(e) Adjust numbers of personnel at stations on deck to reduce overcrowding of boats and life rafts.

(3) OFFICER (PETTY OFFICER) IN CHARGE OF ABANDON SHIP STATION shall:

(a) Control the lowering of life boats or release of life rafts at assigned stations to prevent such action prior to the Commanding Officer's order to abandon ship and to prevent injury to the personnel in the water.

(b) Muster personnel assigned to the station, and report muster to the officer in charge of the debarkation area.

(c) Ensure that personnel at assigned stations are properly dressed and equipped for abandoning ship.

(d) Advise the officer in charge of the debarkation area of the need to shift personnel to reduce overcrowding of life boats and life rafts.

(e) Supervise the removal of injured personnel.

(4) THE WEAPONS OFFICER (OR COMBAT SYSTEMS OFFICER) shall ensure that ordnance ammunition components are set on safe.

(5) THE SUPPLY OFFICER shall save records, accounts, and cash if practical.

(6) THE SENIOR YEOMAN shall save the latest personnel roster and ship's logs as practical.

(7) PERSONNEL REGULARLY ASSIGNED TO BOAT CREWS shall:

(a) Man their respective boats when "prepare to abandon ship" is sounded.

(b) Prepare boats for lowering.

(8) ABBREVIATED PROCEDURES. All personnel are required to exercise individual initiative in abandoning ship as quickly as possible upon receipt of the order. The word may be passed "All hands abandon ship without delay." No preparatory order is given.

(9) ORDERLY PROCEDURES. Orderly abandonment consists of three phases:

(a) Preparation.

(b) Abandonment of all but securing details.

(c) Abandonment by securing details.

The Commanding Officer shall issue orders to abandon ship according to circumstances.

(a) Phase I. "All hands prepare to abandon ship." When this order is given, all personnel below decks who are not engaged in securing or salvage duties proceed topside. All personnel put on life jackets. Officers in charge of debarkation stations order rigging of nets, lines, and ladders over ship's sides.

(b) Phase II. "All hands abandon ship, except securing and salvage details," or "All hands abandon ship." When this order is given, officers in charge of debarkation stations direct release of life rafts and lowering of boats. Personnel proceed over the sides in an orderly fashion.

(c) Phase III. "Securing and salvage detail abandon ship."

(10) SHIP'S SALVAGE CREW. The ship's salvage crew is a skeleton crew remaining on board to continue salvage operations. This detail shall take action to save the ship, including preparations for towing, restricted steaming, or any other action necessary to ensure that ship's return to port. The Engineer Officer is responsible for training the securing and salvage detail.

640.2 AIRCRAFT CRASH AND RESCUE BILL

a. PURPOSE. To set forth procedures for developing and implementing aircraft crash and rescue bills.

b. RESPONSIBILITY FOR THE BILL. The Executive Officer shall appoint an officer to maintain this bill.

c. INFORMATION. Each ship must be prepared to rapidly implement its Aircraft Crash and Rescue Bill. Wide variances in ship characteristics, organization, and capabilities preclude the establishment of a general bill applicable to all units.

A copy of NAVAIR 00-80R-14-1, NATOPS U.S. Navy Aircraft Rescue Information Manual (NOTAL), should be in the custody of the officer appointed to maintain the Aircraft Crash and Rescue Bill.

d. PROCEDURES. Type Commanders promulgate bills which are generally applicable to ships of their forces. Within the guidelines issued by higher authority, individual ships modify Type Commander bills to meet specific requirements.

640.3 EMERGENCY STEERING BILL

a. PURPOSE. The purpose of this bill is to outline standard procedures for a steering casualty.

b. RESPONSIBILITY FOR THE BILL. The Navigator, with the technical assistance of the Engineer Officer, shall be responsible for this bill.

c. RESPONSIBILITIES AND PROCEDURES. If steering control is lost, the responsibilities set forth here apply. Detailed procedures applicable to the equipment installed in after steering shall be issued in supplemental instructions.

(1) THE HELMSMAN IN THE PILOT HOUSE shall:

(a) Report casualty immediately to the OOD.

(b) Sound the steering casualty alarm.

(c) Center the rudder angle indicator amidships.

(2) THE OFFICER OF THE DECK shall:

(a) Use all means available to avoid grounding or collision with other ships.

(b) Immediately notify the after steering helmsman by sound-powered phone or by 1MC as follows: "Bridge has lost control. After steering take control. Steer course (or steer by rudder angle indicator)."

(c) Verify that after steering has control.

(d) Ensure that the Commanding Officer is notified.

(e) Signal the loss of control to the OTC and to ships in the vicinity, using voice radio, whistle, and visual methods as required by the Rules of the Road and ATP 1, Vol I (NOTAL).

(3) THE AFTER STEERING HELMSMAN shall (at the sound of the steering casualty alarm or upon notification by sound-powered phone):

(a) Trip the control cable selector switch out.

(b) Steer from his/her station either by matching pointers on the rudder angle indicator or by steering a course designated by the OOD.

(4) THE QUARTERMASTER OF THE WATCH shall:

(a) Notify the Commanding Officer, Executive Officer, Navigator, and main engine control of the casualty.

(b) Enter pertinent data in the quartermaster's log.

(5) THE BOATSWAIN'S MATE OF THE WATCH shall:

(a) Pass the word "Steering casualty" as directed by the OOD.

(b) Prepare to proceed to after steering when directed by the OOD.

(6) THE DUTY ELECTRICIAN'S MATE AND AUXILIARY MACHINIST'S MATE shall proceed immediately to after steering. The duty EM/IC shall assist the auxiliaryman watch in determining and correcting the cause of casualty and report the status to the bridge/OOD.

640.4 JETTISON BILL

a. PURPOSE. To establish procedures for jettisoning material to improve stability impaired by damage.

b. RESPONSIBILITY FOR THE BILL. The Damage Control Assistant is responsible for maintaining this bill.

c. PROCEDURES. Jettisoning should be accomplished by any available personnel. The highest heavy mobile weight should be removed first followed by lower heavy mobile weights in order of accessibility. Weight handling equipment should be retained until it is no longer useful. Upon command determination that jettisoning is necessary, removal of weight should be accomplished in the following order. This partial listing does not preclude jettisoning of other items as deemed appropriate by the individual command.

(1) Aircraft - flight deck.

(2) Tractors - flight deck.

(3) Ammunition - main deck and above.

(4) Aircraft - hanger deck.

(5) Bomb dollies and torpedo skids.

(6) Heavy or bulky spares stored topside.

(7) Tractors, finger lifts, jeeps.

(8) Cranes (when no longer useful to move heavy weights).

d. RESPONSIBILITIES

(1) THE DAMAGE CONTROL ASSISTANT shall recommend jettisoning and sequence of items for jettisoning to the Commanding Officer.

(2) THE AIR OFFICER* shall direct the jettisoning of items on the flight and hanger decks when directed by the Commanding Officer.

(3) WEAPONS OFFICER (OR COMBAT SYSTEMS OFFICER)* shall jettison ammunition when directed by the Commanding Officer.

*NOTE: These responsibilities belong to the First Lieutenant if an air officer or weapons officer is not assigned.

640.5 MAN OVERBOARD BILL

a. PURPOSE. To provide policies for assignment of personnel to duties and stations and procedures for recovering one person or a small number of personnel from the water.

b. TRAINING. Each individual aboard ship shall be instructed in the action to take if he/she falls overboard and the rescue action which can be expected of the ship. Nonswimmers shall be given the opportunity, by means of organized classes or otherwise, to qualify as swimmers. Frequent drills and instruction of the watch sections and rescue details shall be conducted to ensure the successful execution of this bill.

c. RESPONSIBILITY FOR THE BILL. The First Lieutenant is responsible for this bill and shall make all changes subject to the approval of the Executive Officer.

d. INFORMATION. This bill may be used to organize a ship's company for recovery of personnel from aircraft downed at sea as well as for recovery of personnel lost overboard from a ship in company. Procedures for recovery of a large number of survivors are contained in the Rescue and Assistance Bill.

e. PROCEDURES AND RESPONSIBILITIES

(1) THE EXECUTIVE OFFICER shall:

(a) Supervise all deck recovery procedures.

(b) Be equipped with a megaphone.

(c) Require a muster of all personnel to verify absence of a person from the ship.

(2) HEADS OF DEPARTMENTS shall:

(a) Ensure that division officers assign qualified personnel to stations and duties.

(b) Muster personnel when so ordered, and make reports to the OOD.

(3) DIVISION OFFICERS shall:

(a) Assign personnel from each watch section to duties in the man overboard bill.

(b) Post all assignments on the watch, quarter, and station bill.

(c) Muster the division, and report muster to the department head when required.

(4) ANY PERSON SIGHTING A MAN OVERBOARD shall:

(a) Sing out: "Man overboard, port (starboard) side."

(b) Inform the OOD as quickly as possible.

(c) If near a life ring or other life saving equipment throw or release the equipment as near the person as possible. (At night, lights, flares, or night markers should be used to preclude the release of excessive life rings which may subsequently hamper survivor identification and recovery).

(5) THE LIFEBUOY WATCH shall:

(a) Throw day or night markers and a life ring over on hearing "man overboard," regardless of whether or not he/she sees the person.

(b) Upon sighting the person, throw additional life rings and flares to mark the person. (At night care should be taken to preclude the release of excessive life rings with lights, flares, or other night markers which may subsequently hamper survivor identification and recovery).

(c) If the ship is fueling and highly volatile fuel such as gasoline or jet fuel is in the water or if under darkened ship condition, a flare shall not be used.

(6) THE OFFICER OF THE DECK shall:

(a) Upon receipt of information of a person overboard, maneuver the ship according to prescribed doctrine.

(b) Have the word passed twice: "Man overboard, port (starboard) side."

(c) Sound six or more short blasts on the ship's whistle, and make appropriate visual signals as specified in Volumes I and II of ATP 1:

"By day hoist OSCAR and at night (in peacetime) display two pulsating red lights or fire one white rocket (Very light)."

(d) Notify ships in company and the OTC.

(e) Inform the Commanding Officer, Executive Officer, and Flag Duty Officer, if appropriate.

(f) Take steps to keep the person in sight if practical. Normally a lookout is established in the "eyes of the ship" to point out the person.

(g) Establish communications with the deck recovery detail.

(h) Keep the deck recovery detail informed of the recovery side of the ship.

(i) Have life raft or other lifesaving equipment released as instructed by the Commanding Officer. Use searchlights if the situation dictates.

(7) THE CIC WATCH OFFICER shall:

(a) Shift Dead Reckoning Tracer (DRT) to 200 yard-per-inch-scale, and plot position of ship and the estimated initial position of the person in the water.

(b) Keep the OOD informed of range and bearing to the person in the water and the life raft and/or boat (if in the water).

(c) Establish communications with the rescue helicopter (if available).

(d) Recommend appropriate search plan.

(8) THE RELIEF OFFICER OF THE DECK or the Junior Officer of the Deck shall assume command of the lifeboat as designated.

(9) THE FIRST LIEUTENANT shall:

(a) Direct personnel of the rescue detail on deck.

(b) Control the lowering of the life boat in accordance with orders from the Commanding Officer.

(c) Station personnel with heaving lines (kapok-covered monkey fists) at the proper side of the ship.

(d) Direct lowering of embarkation ladder or net.

(e) Station and control swimmers, each equipped per Table 6-4. Equipment is listed on an allowance equipage list (AEL) in the ship's COSAL.

(10) THE DECK RESCUE DETAIL of the watch section designated by the OOD shall:

(a) Proceed to designated topside stations with equipment per Table 6-3. Equipment is listed on an allowance equipage list (AEL) in the ship's COSAL.

(b) Carry out recovery or rescue procedures as directed by the First Lieutenant.

(c) When ship is at general quarters, personnel will remain at battle stations until released by control officers. The First Lieutenant/Weapons Officer (Combat Systems Officer) shall designate personnel for the lifeboat lowering and raising detail.

f. INTERIOR COMMUNICATIONS. Interior communications should be established as necessary:

(1) From navigation bridge to:

(a) Quarterdeck

(b) Lifeboat davits

(c) Searchlights

(2) From CIC to:

(a) Helicopter deck control station

(b) Signal bridge

g. BOAT RESCUE

(1) Boat crews and lowering detail shall be stationed simultaneously with shipboard recovery stations.

(2) The First Lieutenant will take charge of shipboard recovery stations.

(3) The ship's boatswain or senior boatswain's mate will take charge of the boat lowering detail.

(4) Specific responsibilities for rescue personnel are set forth in Table 6-9. Required boat rescue equipment is listed in Table 6-2. Equipment is listed on an allowance equipage list (AEL) in the ship's COSAL.

STATION	PERSONNEL ASSIGNMENT	WATCH DURATION	DIV	DUTIES
FANTAIL LIFEBUOY WATCH	SA/SN	CONTINUOUS 4-HOUR	DECK	THROW LIFEBUOY IN VICINITY OF MAN IN WATER. SPREAD ALARM IF NECESSARY.
LIFEBOAT CREWS	BM,[1,2] SN,[2] FN,	CONTINUOUS 4-HOUR WATCH	DECK A DIV	MAN BOAT TO RECOVER MAN. READY BOAT FOR LOWERING.
	HM[3]	ON CALL	H	FIRST AID.
	SM	ON CALL	OS	COMMUNICATIONS.
BOAT DIV LOWERING DETAIL		ON CALL	DECK	LOWER BOAT WHEN ORDERED. STAND BY TO PICK UP BOAT.
DECK RESCUE DETAIL	2 SA	ON CALL	DECK	MAN HEAVING LINES WITH KAPOK MONKEY FISTS.
	BM, 2 (ANY)	ON CALL	DECK	LOWER LADDERS AND NETS.
	2 (ANY)[1,4]	ON CALL	DECK	STAND BY IN HARNESS TO ASSIST MAN IN WATER.
	4 SA/SN	ON CALL	DECK	ATTEND LINES ON SWIMMERS.
SPECIAL	2 QM	ON CALL	OS	KEEP MAN IN SIGHT.
SHARK WATCH	GM	ON CALL	DECK	USE RIFLE FIRE TO DRIVE OFF A SHARK ONLY AS A LAST RESORT AND WHEN DIRECTED.

[1] MUST BE GRADUATE OF A CNO APPROVED RESCUE SWIMMER SCHOOL.

[2] IN-BOAT SHARK WATCH.

[3] IN-BOAT VICTIM LOOKOUT.

[4] ON MCM AND PC-1 CLASSES OF SHIPS, THE REQUIREMENT IS ONE RESCUE SWIMMER.

Table 6-9. Rescue Responsibilities

(5) The lowering detail will consist of different duties and different numbers of personnel, depending on ship type. The rescue boat detail consists of the personnel and equipment set forth in Table 6-10. The maximum number of personnel authorized during hoisting/lowering is seven.

h. SIGNALS BETWEEN SHIP AND BOAT. Signals between ship and boat are set forth in Table 6-11.

i. RESCUE PROCEDURES IN THE HARBOR. The procedures in the harbor are initiated by the OOD, who orders the word passed "Man overboard _____ side." All available boats are called away on the double. Commanding Officer, Executive Officer, and Flag Duty Officer, if appropriate, are notified. Any available line officer is dispatched to direct the rescue efforts from the boat. Life buoys and/or kapok-covered monkey fists on a heaving line are thrown to the person in the water.

j. SPECIAL RESCUE PROCEDURES IN HEAVY WEATHER. Such procedures require the following added considerations.

(1) A long approach on the person usually avoids placing the ship in a dangerous condition with respect to the seas.

(2) Avoid stopping in such a position that the person is rolled under the ship when alongside.

(3) A downwind or down-sea approach is normally best. Use engines to hold ship in position when stopped.

(4) All hands should stay clear of forecastle during rescue operations. They should avoid working in areas where heavy seas are breaking on the ship. Close coordination between bridge and rescue details is required.

(5) Only rescue personnel shall be permitted topside. Life jackets shall be required for rescue personnel.

(6) When the person is recovered, all hands should be clear of exposed decks before rendering first aid.

(7) Rescue details should be kept in one group during actual rescue operations.

(8) Any or all of the following may be used as the circumstances dictate:

(a) Life rings.

NO OF PERSONNEL	RATE	DUTY	DEPARTMENT
1#	JOOD	BOAT OFFICER WITH BINOCULARS	ANY
1#	BM 3/2	COXSWAIN	DECK
2*	ANY	RESCUE SWIMMER	ANY
1**#	SM 3/2	COMMUNICATIONS/RIFLEMAN	OPS
1***#	HM	CORPSMAN	MED

* MUST BE A GRADUATE OF CNO APPROVED RESCUE SWIMMER SCHOOL.
** MUST BE QUALIFIED ON M1/M14 RIFLE FOR SHARK WATCH.
*** ONLY WHEN TWO OR MORE ON BOARD SHIP.

MUST BE SECOND CLASS SWIMMERS.

NOTE: 1 IN AN EMERGENCY SITUATION, WHERE HUMAN LIFE IS IN JEOPARDY THE NUMBER OF PERSONNEL AUTHORIZED DURING HOISTING (SEVEN PERSONS) CAN BE INCREASED UP TO THE FULL CAPABILITY OF THE BOAT. ALL PERSONNEL SHOULD BE DEBARKED AT THE RAIL INCLUDING THE BOAT CREW IF NOT REQUIRED FOR HOISTING THE BOAT ALL THE WAY.
2 INHERENTLY BUOYANT LIFE JACKETS AND SAFETY HELMETS ARE REQUIRED FOR ALL EMBARKED PERSONNEL DURING HOISTING/LOWERING.

Table 6–10. Life Saving Crew

FROM SHIP TO BOAT FLAG OR BLINKER	PYROTECHNICS	MEANING
TWO	TWO WHITE STARS	STEADY ON PRESENT COURSE.
THREE	ONE WHITE STAR	STEER STRAIGHT AWAY FROM SHIP.
THREE PORT	ONE RED STAR	STEER LEFT (OR TO PORT). WHEN HAULED DOWN, CEASE TURN AND STEADY ON PRESENT COURSE.
THREE STBD	ONE GREEN STAR	STEER RIGHT (OR TO STARBOARD). WHEN HAULED DOWN, CEASE TURN AND STEADY ON PRESENT COURSE.
EIGHT	TWO GREEN STARS	STEER STRAIGHT TOWARD SHIP.
QUEBEC	TWO RED STARS	RETURN TO SHIP.
FROM BOAT TO SHIP **VISUAL SIGNALS**	**PYROTECHNICS**	**MEANING**
BLINKER OR SEMAPHORE	ONE GREEN STAR	CANNOT FIND MAN.
	ONE WHITE STAR	HAVE RECOVERED MAN.
	ONE RED STAR	NEED ASSISTANCE.

Table 6–11. Signals Between Ship and Boat

(b) J-bar davits rigged with rescue lines following Table 6-3 (page 6-156)

(c) Kapok-covered monkey fists on heaving lines.

(d) Tended swimmers.

(e) MK 87 line throwing kit.

(f) Ladders and nets.

(g) Life raft.

640.6 NUCLEAR REACTOR PLANT CASUALTY BILL

a. PURPOSE. To establish general procedures, assign responsibilities, and define the basic considerations involved in a nuclear power plant casualty.

b. RESPONSIBILITY FOR THE BILL. The Engineer/Reactor Officer, under the supervision of the Executive Officer, is responsible for maintaining this bill. The Engineer/Reactor Officer, under the supervision of the Commanding Officer, shall conduct drills to test the adequacy of the bill and to evaluate the state of training.

c. INFORMATION. In the unlikely event that reactor conditions degrade to the point of producing a nuclear reactor accident or radiological accident, immediate and proper action in all compartments is mandatory to minimize damage or spread of radioactive contamination. The ship must be prepared to take correct action to control, monitor, and decontaminate affected areas and personnel.

d. ACTION

(1) All ships will maintain a nuclear reactor accident/incident plan in a folder assembled with applicable documents and directives from higher authority including a checkoff list based on OPNAVINST 3040.5C (NOTAL) and radiation control and contamination criteria under NAVSEA S9213-33-MMA-000/(V), (R
Radiological Controls for Ships (NOTAL) for all ships except tenders (AS and AD), or NAVSEA 389-0153, Radiological Controls (NOTAL), for AS and AD type ships. This folder will be unique to the ship and its current location.

(2) A nuclear-trained officer will be assigned to maintain this folder.

(3) All Engineering Officers of the Watch, Engineering Duty Officers, Engineering Watch Supervisors, and other supervisory personnel as designated by the Commanding Officer shall be familiar with this folder and shall review it periodically. A disclosure record shall be maintained.

(4) The ship will ensure its readiness to respond to a nuclear power plant casualty by periodically conducting drills prepared by the Engineer/Reactor Officer with approval of the Commanding Officer.

e. PROCEDURES AND RESPONSIBILITIES

(1) THE COMMANDING OFFICER/COMMAND DUTY OFFICER shall:

(a) Set the appropriate material condition to contain the hazard within the ship.

(b) If in port, prepare to get underway and proceed to sea.

(c) Be prepared to assume the responsibility
R) commensurate with the situation as defined by OPNAVINST 3040.5C (NOTAL) until relieved by higher authority. Immediately notify proper authorities with correct information.

(d) Initiate all applicable sections of the command's nuclear reactor accident/incident plan.

(2) THE EXECUTIVE OFFICER shall:

(a) Direct that the appropriate material condition be set, and ensure that the ship's damage control organization responds to its fullest capabilities.

(b) Assist the Commanding Officer in preparing report data.

(c) Assign duties to members of the ship's force who are not immediately involved in the casualty and who do not have a specific responsibility assigned under this bill.

(3) THE ENGINEER/REACTOR OFFICER shall:

(a) Take charge at the scene of the casualty.

(b) Inform the Commanding Officer of all major developments.

(4) THE DAMAGE CONTROL ASSISTANT shall:

(a) Direct the ship's damage control organization in assisting the personnel at the scene.

(b) Inform the Commanding Officer of the status of the casualty, and of any requirements for outside assistance.

(c) Recommend to the Commanding Officer types of respiratory protection and other anticontamination measures appropriate to the casualty.

(d) Recommend personnel evacuation or other necessary measures.

(5) ALL OFFICERS, if not specifically assigned duties, shall proceed to the damage control party staging areas or to appropriate departmental spaces which may be affected by the emergency, take charge of emergency action, and render all possible assistance.

640.7 NUCLEAR WEAPONS ACCIDENT/INCIDENT BILL

a. PURPOSE. To establish general procedures, assign responsibilities, and define the specific hazards and basic considerations involved in a nuclear weapons accident/incident.

b. RESPONSIBILITY FOR THE BILL. The Weapons Officer (or Combat Systems Officer) under the supervision of the Executive Officer, is responsible for this bill. The Nuclear Safety Officer (if assigned) shall assist the Weapons Officer with this bill.

c. INFORMATION. A nuclear weapons accident/incident is a potential or actual casualty to a nuclear weapon or related system which endangers personnel, the ship, or its vital equipment.

d DEFINITIONS. Of nuclear weapons accidents and incidents:

NUCLEAR WEAPON ACCIDENT. An unexpected event involving nuclear weapons or nuclear components which results in any of the following:

(1) Accidental or unauthorized launching, firing, or use by U.S. forces or by U.S. supported allied forces of a nuclear capable weapon(s) system which could create a risk of war.

(2) Nuclear detonation.

(3) Non-nuclear detonation/burning of a nuclear weapon.

(4) Radioactive contamination.

(5) Seizure, theft, or loss of a nuclear weapon or nuclear component, including jettisoning.

(6) Public hazard, actual or implied.

NUCLEAR WEAPON SIGNIFICANT INCIDENT. An unexpected event involving weapons or nuclear components which does not fall in the nuclear weapon accident category but:

(1) Results in evident damage to a nuclear weapon or nuclear component to the extent that major rework, complete replacement, or examination or recertification by the Department of Energy (DOE) is required; or

(2) Requires immediate action in the interest of safety, or which may result in adverse public reaction (national or international) or premature release of information; or

(3) Has such potential consequences as to warrant the informational interest or action of CNO, Fleet Commander in Chief (FLTCINC), or area coordinator (as appropriate), and others in the military chain of command.

NUCLEAR WEAPON INCIDENT. A casualty which, by contrast, does not fall into the foregoing categories. It is defined as any unexpected event involving a nuclear weapon or component (including war reserve, operational suitability test, quality assurance service test (QAST), training weapons, associated test and handling equipment), resulting in any of the following:

(1) Incidents whereby the possibility of detonation or radioactive contamination is increased.

(2) Individual errors committed in the assembly, testing, loading, or transporting of equipment; or the malfunctioning of equipment and material which could lead to an unintentional operation of all or part of a weapon arming or firing sequence.

(3) Individual errors committed in the assembly, testing, loading, or transporting of equipment; or the malfunctioning of equipment, and material which could lead to substantially reduced yield or increased dud probability.

(4) Any natural phenomenon, over which man has no control, resulting in damage to weapon or component.

(5) Any unfavorable environment or condition which causes damage to a weapon or component.

(6) An unfavorable environment or condition, which subjects a nuclear weapon to vibration, shock, stress, extreme temperature, or other environment sufficient to cause a question of reliability or safety of the type weapon involved. This includes exposure or suspected exposure of the weapon or major components to electrical or electromagnetic energy which could energize or damage weapon components.

e. GENERAL PLAN. For planning purposes nuclear weapons accidents or significant incidents may be divided into these phases:

(1) PREPARATORY PHASE. All cognizant personnel are placed on alert, and firefighting personnel and equipment are

readied for use during any nuclear weapons handling evolutions in order that response time is minimized.

(2) ACCIDENT PHASE. During this phase, personnel determine the nature of the problem and take immediate actions to control the effects of an explosion/fire or release of radioactivity.

(3) EOD PHASE. Once the effects of a casualty have been contained, the weapon must be rendered safe by the EOD team. Setting the reflash watch, removing or isolating of loose high explosive, and dewatering and desmoking normally are conducted during this phase.

(4) MONITORING PHASE. Radiation casualty teams with alpha and gamma survey meters and air sample devices determine what radiation hazards exist to enable the on-scene commander to evaluate the situation.

(5) DECONTAMINATION PHASE. Contaminated or injured personnel are removed, decontaminated, and provided medical assistance as necessary. Guidance for the medical aspects of nuclear safety is in special weapons ordnance publications (SWOPs) and other references of higher authority. Once radiation areas are determined during the monitoring phase, outside assistance may be requested for personnel and advice as to how best to decontaminate affected areas.

(6) REPORTING PHASE. Initial, progress, and final reports must be submitted as applicable. NOTE:

(a) The order in which the phases occur is not fixed because of the many situations that may arise. Generally, portions of each phase may occur simultaneously.

(b) Effective on-scene leadership and internal communications are essential for rapid control and neutralization of any nuclear weapon casualty situation.

f. IMMEDIATE ACTION

(1) Control the effects of an explosion/fire by standard damage control procedures. Personnel should ensure that other weapons/explosives in the immediate vicinity are protected from the effects of heat. Loose high explosives create additional hazards.

(2) Determine radiation hazards and gross contamination using survey meters or air sampling equipment. All personnel at the scene should have some type of respiratory protection and

should be relieved as soon as practical by personnel in proper protective clothing. Contamination must be controlled as soon as possible. The spread of radioactive contamination may cause considerable public concern no matter how small the contamination.

(3) Table 6-12 contains suggested criteria for radiation exposure during a nuclear weapons accident or significant incident.

g. PROCEDURES AND RESPONSIBILITIES

(1) THE COMMANDING OFFICER/COMMAND DUTY OFFICER shall:

(a) Set appropriate material condition to contain the hazard within the ship. If necessary in port, put emergency shore survey team ashore.

(b) If in port, prepare to get underway and proceed to sea if necessary to reduce the possibility of hazard to life and property in the vicinity.

(c) Assume duties of immediate on-scene commander until relieved by higher authority. Immediately provide the proper authorities with correct information.

(d) Monitor ship and vicinity to determine extent and degree of contamination. If in port, request assistance from local authorities as necessary to adequately control entry and departure from the possible contaminated area. Restriction of entry and accountability of personnel is important. It is preferable to have local authorities enforce isolation and/or evacuation of any contaminated area ashore.

(e) Evacuate personnel from ship as necessary.

(f) If rescue or salvage operations are involved, advise as to the degree of radioactive hazard to divers and rescue personnel.

(g) Provide assistance to other ships involved in a nuclear weapons accident/incident.

(h) Make necessary reports.

(2) THE EXECUTIVE OFFICER shall:

(a) Direct that the appropriate material condition be set and ensure that the ship's damage control organization responds to its fullest capabilities.

DURING EMERGENCY PHASE (EXPOSURE LARGELY CONTROLLED)	
1. NO PHYSIOLOGICAL CHANGES LIKELY TO BE OBSERVED.	LESS THAN 25 REM
2. NO IMPAIRMENT LIKELY BUT SOME PHYSIOLOGICAL CHANGES MAY OCCUR. MEDICAL OBSERVATION REQUIRED.	25 TO 150 REM
3. SOME PHYSICAL IMPAIRMENT POSSIBLE.	OVER 150 REM
4. LETHAL EXPOSURE FOR MORE THAN 50 PERCENT OF PEOPLE.	OVER 450 REM
5. LETHAL EXPOSURE FOR 100 PERCENT OF PEOPLE.	OVER 600 REM
DURING SUBSEQUENT PHASES (EXPOSURE CONTROLLED)	
1. AREAS SHOULD BE POSTED AND PERSONS MONITORED.	OVER 1 REM/HR
2. LIMIT FOR INDIVIDUALS IN THE GENERAL POPULATION NOT OCCUPATIONALLY EXPOSED	OVER 0.5 REM/YR
3. MUST BE REPORTED TO THE NAVAL MEDICAL COMMAND AS EXCEEDING OCCUPATIONAL EXPOSURE LIMIT.	OVER 3 REM/QUARTER YR
4. RECOMMENDED LIMIT FOR PLANNED EXPOSURE DURING EMERGENCY RECOVERY PHASE.	12 REM

Table 6–12. Criteria for Whole Body Radiation Exposure

(b) Assist the Commanding Officer, and inform him/her of all significant developments and suspected or anticipated damage to the ship's systems.

(c) Assign duties to members of ship's force not immediately involved in the casualty and who do not have a specific responsibility assigned under this bill.

(3) THE IMMEDIATE ON-SCENE OFFICER shall:

(a) Immediately notify the bridge and damage control central of a nuclear weapons accident/significant incident situation.

(b) Take charge at the scene to minimize loss of life and material damage until relieved by the Weapons Officer or other designated officer who is specifically trained to cope with a nuclear weapons casualty situation.

(4) THE WEAPONS OFFICER (OR COMBAT SYSTEM OFFICER) or other designated qualified officer shall:

(a) Take charge at the scene of the casualty.

(b) Inform the Commanding Officer of all major developments, and any requirements for outside assistance.

(5) THE DAMAGE CONTROL ASSISTANT shall:

(a) Direct the ship's damage control organization in assisting personnel at the scene.

(b) Establish a decontamination route for personnel leaving the scene of the casualty, and set up personnel decontamination stations.

(c) Recommend to the Commanding Officer the types of respiratory protection and other anti-contamination measures appropriate to the casualty.

(d) Establish stay-times for personnel at the scene based on initial radiation monitoring results.

(6) THE MEDICAL DEPARTMENT REPRESENTATIVE SHALL:

(a) Prepare to receive and treat injured personnel.

(b) Inform the Commanding Officer of the status of personnel casualties, and of any requirements for outside assistance.

(c) Make recommendations on personnel evacuation or other measures as deemed necessary.

640.8 TOXIC GAS BILL

a. PURPOSE. To specify the procedures and assign duties and responsibilities for controlling and minimizing the effects of toxic gas within the unit (See NWP 62-1 (Rev D), Surface Ship Survivability) (NOTAL).

b. RESPONSIBILITY FOR THE BILL. The Damage Control Assistant (DCA) is responsible for this bill.

c. INFORMATION

(1) Toxic gases which may be encountered include those gases whose presence indicates an emergency condition (chlorine, and so forth) and for which no allowable concentration is established and those normally generated gases (carbon monoxide, ammonia, carbon dioxide) for which permissible limits have been established for continuous exposure. (See Table 6-13). The ship's response to a toxic gas emergency should include the immediate evacuation of personnel, determination of the hazard, and removal of the hazard. The response could be summarized as an accelerated gas free evolution.

(a) Conduct atmospheric testing, even if the source can be found and stopped. If the local reading is high, it is possible to wait for dilution. All exposed personnel should be observed by a medical representative for symptoms of toxic exposure.

(b) If initial concentration meets "immediately dangerous to life or health" (IDLH) levels and if the source cannot be found quickly and stopped, or if personnel develop symptoms traceable to the material, fresh air ventilation and/or respiratory protection must be used.

(c) If the operational or tactical situation on board submarines does not require continued submergence, surface ventilation is preferable when any appreciable quantity of toxic material is discovered.

(2) The decision as to whether the general alarm should be sounded must be based on the circumstances. The appropriate word must be passed to notify all hands of a toxic gas emergency. Slight over tolerances will not require sounding of the general alarm. On the other hand, excessive smoke or the rapid escape of any toxic gas may dictate the sounding of the general alarm.

GAS/VAPOR	HOW USUALLY PRODUCED	HOW PROBABLY DETECTED	EFFECTS OF OVEREXPOSURE
Acetone	Use as solvent	Smell	Fire hazard, slight eye and nose irritation at high concentration.
Acetylene	Welding bottle leak	Odor of natural gas used in ranges	Suffocating at high concentrations, explosive above 2.5%.
Acrolein	Cooking, engine exhaust, cigarette smoking	Smell	Disagreeable choking odor irritating to eyes and throat.
Amine vapor	CO_2 scrubber carryover	Ammonia-like odor	Irritating to eyes and throat
Ammonia	Amine decomposition	Ammonia odor	Irritating to eyes and throat
Arsine Stibine Hydrogen	Battery gassing	Smell – garlic, rotten egg	Nausea and vomiting.
Carbon dioxide	Human exhalation, fire extinguisher	Installed gas analyzer and Dwyer apparatus	Headache, dizziness and headaches at high concentrations.
Carbon monoxide	Smoking, fuel combustion exhaust, cooking	Gas analyzer	Headache, sleepiness. Death.
Chlorine	Salt in battery, chlorate candles	Chlorox odor if high concentrations	Burning of eyes and throat. Death.
Freon	Refrigeration and air conditioning leaks.	Gas analyzer	Smothering effect at high concentrations. Death.
Hydrocarbons (various types)	Cooking, paints, solvents, fuels, leaks	Smell	Dizziness, irritation of eyes/throat.
Hydrochloric acid fumes	Oxidation of freon	Acrid odor	Burning of throat and eyes.
Hydrofluoric acid fumes	Oxidation of freon	Acrid odor	Burning of throat and eyes.

Table 6–13. Example of Toxic and Hazardous Gases/Vapors That May Be Encountered

GAS/VAPOR	HOW USUALLY PRODUCED	HOW PROBABLY DETECTED	EFFECTS OF OVEREXPOSURE
Hydrogen sulfide	Sanitary tanks, sewage disposal system leakage	Smell, rotten egg odor	Eye irritant, asphyxiant. Death.
Mercury sulfide	Leakage from mercury-filled devices, pressure gauges	Mercury vapor detectors	Possible central nervous system damage. Effects may be long-term and not noticeable.
Ozone	High voltage electrical equipment — precipitron	Smell	Lungs and respiratory irritant, headaches.
Sulfuric acid mist, sulfur gases	Battery gassing, sanitary leakage	Acrid odor	Irritating to eyes, nose, and throat

Table 6–13. Example of Toxic and Hazardous Gases/Vapors That May Be Encountered (Cont.)

(3) The affected compartment usually can be determined by direct report from that compartment. Do not rely solely on reports from the affected space because those personnel may have been overcome by the toxic vapors. Care should be taken to monitor boundary spaces in addition to the affected space.

(4) If a submarine is completely submerged, chlorine will most likely be detected in the ventilation exhaust. If surfaced, snorkeling, or ventilating, chlorine will most likely be detected only in the battery well. If chlorine is encountered, secure the agitation system. Chlorine is most likely to be caused by flooding, which could also produce fire.

d. PROCEDURES AND RESPONSIBILITIES

(1) ALL HANDS shall:

(a) Pass the word to the OOD giving type and source of gas, compartment name and number, and status of personnel remaining in space or vicinity.

(b) Shut bulkhead flappers, for applicable ships, and dog watertight doors.

(c) Carry out procedures of the General Emergency and Toxic Gas Bills.

(d) If gas is concentrated in one compartment, all unnecessary personnel shall evacuate the compartment immediately. Those remaining shall evacuate as soon as possible and shall wear respiratory protection while required to remain in the space.

(e) Designated repair personnel don respiratory protection.

(2) THE OFFICER OF THE DECK shall:

(a) Sound the general alarm and signal the emergency (on report of a large amount of toxic gas).

(b) Pass the word again.

(c) On board submarines, reduce load on battery to minimum. Secure battery charge if in progress.

(d) Carry out other applicable sections of the General Emergency Bill.

e. REFERENCES. Further information on possible contaminants in ships' atmospheres and the allowable exposure limits are contained in the following documents:

(1) NAVSHIPS 0938-011-4010, Nuclear Submarine Atmospheric Control Manual (NOTAL). (See Table 5-4, Limits for Atmospheric Constituents in Nuclear Submarines.)

(2) OPNAVINST 5100.23D, Navy Occupational Safety and Health Program Manual. (R

(3) NSTM 074 VOL 3.

(4) OPNAVINST 5100.19C, Navy Occupational Safety and Health Program Manual, Forces Afloat.

640.9 NUCLEAR REACTOR SECURITY BILL

a. PURPOSE. To provide a team to respond quickly to any attempt to sabotage or damage the reactor plant aboard nuclear powered ships.

b. RESPONSIBILITY FOR THE BILL. The Engineer Officer is responsible for this bill.

c. INFORMATION. Overall ship security provisions are the first line of protection for limiting access to reactor plant spaces to authorized personnel. Situations could occur wherein an unauthorized boarder, crew member or other individual(s) might maliciously damage the nuclear reactor or its vital support components which could result in a nuclear reactor accident or
A) radiological accident. This bill provides for a first line of armed protection and an assigned team of trained personnel who can proceed to a designated trouble area to limit or prevent sabotage. The self defense force shall be activated immediately to assist the team with any significant threat.

d. REQUIREMENTS

(1) The NUCLEAR REACTOR SECURITY TEAM shall:

(a) Consist of a minimum of two people who can reach the scene of possible sabotage within 5 minutes notice with a backup force of three people armed with firearms who can respond within 10 minutes of the initial alert.

(b) Be indoctrinated in the topics listed below: Documentation of such training shall be in accordance with type commanders' instructions.

1. General orders.

2. Operation and use of communications equipment.

3. Application of deadly force.

4. Rules of engagement (to include personnel identification, apprehension, and control).

5. Appreciation of local threat.

6. Overview of ship's nuclear reactor security plan.

7. Procedures for drills and exercises.

8. Qualification or familiarization firing of type of assigned weapon for those team members required to bear firearms.

9. Requirements for entry into nuclear propulsion spaces.

10. Familiarization with propulsion plant spaces to ensure ability to provide protection for those spaces.

(2) While a nuclear-powered ship is in-port, there will be an armed (i.e., equipped with firearm and associated ammunition) security watch at each point of access used by personnel not assigned to the ship. This requirement is in addition to the armed response required in paragraph 640.9d(1) and should ensure that only authorized personnel have access to the ship. This function is normally provided by the armed topside watch aboard a nuclear-powered submarine and an armed watchstander on each brow of a nuclear-powered surface ship. However, in locations where an external armed response is provided and positive access to the area adjacent to the ship is controlled (i.e., shipyards), this first line of armed protection can be transferred under an appropriate security memorandum of agreement between the ship and supporting activity. (A

(3) This bill shall be in effect for any commissioned ships with a reactor core installed. For new construction ships, the prospective Commanding Officer or officer in charge shall establish this bill upon taking custody of a reactor core. By written agreement, new construction ships, overhaul ships, or ships undergoing inactivation may use shipyard resources to satisfy the requirements of this bill in accordance with NAVSEAINST C9210.22B (NOTAL). (A

(4) Implementing directives shall be prepared and made available to fleet commander inspection teams.

e. PROCEDURES AND RESPONSIBILITIES

(1) THE COMMANDING OFFICER shall:

(a) Ensure that this bill is consistent with other security procedures for the ship.

(b) Approve security drills in nuclear propulsion spaces as recommended by the Engineer Officer.

(2) THE EXECUTIVE OFFICER shall:

(a) Coordinate assignments of ship's personnel to all ship emergency bills to ensure adequate coverage of the requirements of this bill.

(b) Ensure that teams are organized and trained under paragraph 640.9d.

(c) Monitor performance periodically of the nuclear reactor security response force to ensure adequacy of training and state of readiness. Review reports of discrepancies, direct corrective action and make appropriate reports to the Commanding Officer.

(d) Issue to all shipboard personnel the procedures and criteria for alerting the Nuclear Reactor Security Team.

(3) THE ENGINEER OFFICER shall:

(a) Ensure that personnel assigned to these teams meet
R) the requirements of NAVSEA S9213-33-MMA-000/(V), Radiological Controls for Ships (NOTAL) for all ships except tenders (AS and AD), or NAVSEA 389-0153, Radiological Controls (NOTAL), for AS and AD type ships, for entry into propulsion spaces.

(b) With approval of the Commanding Officer, conduct drills to ensure the team's proficiency.

(c) Ensure that drills are monitored, discrepancies documented, and corrective action taken.

(d) Ensure that drills do not interfere with nuclear reactor operation.

(4) THE NUCLEAR REACTOR SECURITY TEAM shall:

(a) Respond to reactor/propulsion plant security alerts following local procedures.

(b) During a security alert, request information (hazards, locations which should be protected, etc.) from nuclear qualified watchstanders in the propulsion plant.

(c) Unless required to avert sabotage or damage to the reactor plant, take no action which interferes with reactor plant operations or affects the performance of watchstanders assigned to the nuclear propulsion plant.

(5) ALL DEPARTMENT HEADS shall provide personnel as requested by the Engineer Officer to support the requirements of this bill.

650. SPECIAL BILLS

650.1 ANTI-SNEAK/ANTI-SWIMMER ATTACK BILL

a. PURPOSE. To assign responsibility for and promulgate procedures for defense against sneak/swimmer attack.

b. RESPONSIBILITY FOR THE BILL. The Security Officer is responsible for this bill. When there is no Security Officer authorized/assigned the Operations Officer, assisted by the CMAA, is responsible for this bill.

(1) When moored in foreign ports or anchored in foreign or hostile waters, ships are vulnerable to attack by swimmers and small boats. To detect and defeat sneak attack, the ship must be organized and trained for this purpose.

(2) Underwater swimmers are particularly vulnerable to underwater explosion and intense noise. Defensive measures against underwater swimmers include detonation of hand grenades at random intervals and active pinging with the ship's sonar.

(3) Frequent and irregular turning of the ship's screws and movement of the rudder can effectively deter swimmers.

(4) Defense against swimmer and small boat attack should be emphasized during periods of limited light or low visibility.

(5) Defense in depth is vital for early warning and shall be used to the maximum extent possible.

(6) The Self Defense Force shall be activated at the earliest indication of a significant threat.

c. PROCEDURES AND RESPONSIBILITIES. The Anti-Swimmer/ Anti-Sneak Attack Watch will be set on orders of the Commanding Officer when sneak attack is probable or when directed by higher authority. Responsibilities for defending the ship against sneak attack are as follows:

(1) THE EXECUTIVE OFFICER shall supervise the overall sneak attack defensive measures to be taken in accordance with this bill.

(2) THE OPERATIONS OFFICER shall:

(a) Closely screen all operational intelligence information for any indication of possible sneak attack activity in the area in which the ship is located.

(b) Maintain a radar watch of the area around the ship to detect early any small boat activity which may indicate the initiation of a sneak attack.

(c) Establish tactical communication with Navy ships in the vicinity for sneak attack warning and defense coordination.

(d) When a picket boat is in use, establish communications with the boat and exercise radar control over the boat for investigating small boat contacts.

(e) Post a watch at the ship's searchlights to illuminate small boats or swimmers when sighted.

(3) THE WEAPONS OFFICER (OR COMBAT SYSTEMS OFFICER) shall:

(a) Provide small arms and hand grenades to the anti-sneak/anti-swimmer attack watchstanders as directed by the Executive Officer.

(b) Supervise the launching and operation of the picket boat when in use. This would be a function of the Operations Officer if the unit has a combat systems department.

(c) Station a sonar watch, and direct the watch to conduct active pinging on a random basis when so directed by the Executive Officer.

(4) THE ENGINEER OFFICER shall:

(a) Direct the engine room watch to make a random turnover of the ship's propellers.

(b) Ensure that the material condition of readiness directed by the Executive Officer is set.

(c) Activate the steering engines to enable the OOD to move the ship's rudder.

(5) THE SHIP SECURITY OFFICER shall:

(a) Advise the Executive Officer on the number and location of anti-sneak/anti-swimmer attack watches to be posted.

(b) Train personnel for anti-sneak/anti-swimmer attack watch. Post these watches when directed by the Executive Officer, and ensure that watchstanders understand their duties.

650.2 EVACUATING CIVILIANS BILL

a. PURPOSE. To assign responsibilities and promulgate general plans for evacuating civilian personnel from unfriendly shores or disaster areas.

b. RESPONSIBILITY FOR THE BILL. The Executive Officer is responsible for this bill.

c. INFORMATION. The plans and procedures in this bill provide guidance for evacuating civilian personnel. Situations will differ in regard to the number and sex of passengers embarked and the length of time on board. Detailed plans must be formulated after assignment to a specific evacuation mission.

d. RESPONSIBILITIES. Responsibilities for planning and executing an evacuation mission are as follows:

(1) THE EXECUTIVE OFFICER shall organize, direct, and supervise the operation assisted by the executive staff and other personnel as required.

(2) THE OPERATIONS OFFICER shall:

(a) Organize and direct ship-to-shore movements and embarkation and debarkation.

(b) Organize and direct a beach guard to supervise and control the loading and dispatching of boats ashore.

(c) Direct such officers and enlisted personnel as the Executive Officer may request to process and control evacuees.

(3) THE SUPPLY OFFICER shall:

(a) Organize, direct, and supervise the messing of evacuees.

(b) Issue such clothing and supplies to evacuees as the Executive Officer may direct.

(4) THE WARDROOM MESS OFFICER/CATERER shall assign stateroom and head facilities to evacuees as required.

(5) THE MEDICAL OFFICER shall organize and direct the necessary medical facilities for the health of evacuees and the care and treatment of the sick and injured.

(6) THE ADMINISTRATIVE ASSISTANT shall:

(a) Supervise a census of evacuees.

(b) Issue such orders and instructions to evacuees as the Executive Officer may direct.

(c) Supervise assignment of berthing and head facilities to evacuees as required.

(7) THE WEAPONS OFFICER (OR COMBAT SYSTEMS OFFICER) assisted by the CMAA shall organize and direct such sentry details as the Executive Officer may direct.

(8) THE CHIEF MASTER-AT-ARMS shall direct the master-at-arms force in such policing duties as the Executive Officer may direct.

(9) THE FIRST LIEUTENANT shall provide all unassigned life jackets for issuance to evacuees as the administrative assistant may request.

e. GENERAL PLANS

(1) BASIC CONSIDERATIONS. Transportation of civilians in excess of available facilities will constitute a problem in berthing and messing. Evacuees shall be berthed and subsisted as personnel of embarked units or passengers in accordance with the provisions of this bill and other directives issued by the Executive Officer.

(2) EMBARKATION - DEBARKATION

(a) Boats. All available ship's boats and any other available boats in the vicinity shall be used for the ship-to-shore movement. Loading and dispatching from the beach shall be under the direction of the beach guard officer. Boating at the ship shall be controlled by the OOD and any assigned officer assistants.

(b) Helicopter/Fixed-wing aircraft. Aircraft shall be loaded and dispatched from the beach under the direction of the Beach Guard Officer. Landing and dispatching of aircraft at the ship will be controlled by the Air Officer as scheduled by the Operations Officer.

(c) Baggage. No baggage or household effects of evacuees shall be loaded except that which can be readily carried by the owner.

(d) Ladders. All accommodation ladders shall be rigged when embarking/debarking by boat. Cargo nets and Jacob's ladders may be used to embark evacuees if necessary.

(3) ORGANIZATION AND PROCESSING OF EVACUEES

(a) As evacuees are embarked, sentries shall direct them to specified areas for census and berthing assignments under the direction of the Personnel Officer and the Wardroom Mess Officer/Caterer.

(b) Men and women evacuees shall be divided into separate groups. The groups shall be further divided into units of 10 persons for administration and processing.

(c) Officers assigned by the Operations Officer and assisted by sentries provided by the Weapons Officer shall direct and supervise evacuees under the direction of the Executive Officer or the Administrative Assistant acting for the Executive Officer.

(d) The Administrative Assistant shall record data for each evacuee prior to berthing, messing, and assigning emergency stations. (See Figure 6-18).

(e) Evacuees shall be examined by a doctor or corpsman to determine the general state of their health and to detect injuries or diseases requiring treatment. Injuries or apparent diseases shall be noted on their census cards. On the advice of the Medical Officer, one compartment shall be designated as a sick bay for evacuees.

(f) The First Lieutenant shall make life jackets available for issuance to each evacuee when registered. If the supply of life jackets is inadequate, women and children shall be given preference. Life jackets must be in each person's immediate possession at all times.

(g) Evacuees shall wear a name tag at all times while aboard. The tag shall bear the evacuee's name, berthing space, and unit number. The Supply Officer shall ensure that an adequate supply of tags is on board and delivered to the Administrative Assistant, upon request, when the provisions of this bill are placed into effect.

(h) The Executive Officer shall ensure unit leaders are selected from among the several evacuees. These unit leaders shall be spokespersons and all directions and orders to evacuees shall be made through them. Brassards shall identify the unit

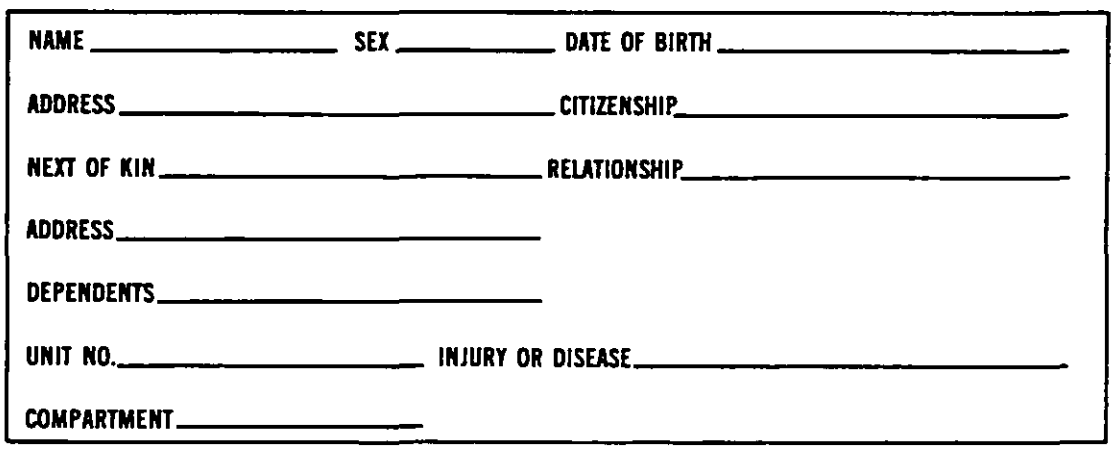

Figure 6–18. Evacuee Census Card Sample Format

leaders. If practical, unit leaders should speak a common language.

(4) MESSING

(a) Evacuees shall be subsisted in separate mess decks at regular hours; however, if there is overcrowding, the Supply Officer shall organize and direct an "around the clock" feeding system to ensure that evacuees are adequately fed.

(b) The unit leaders shall detail certain evacuees to mess duties. The number so detailed and their assignment to duties shall be determined by the Supply Officer with the concurrence of the Executive Officer.

(5) BERTHING

(a) If it becomes necessary to displace ship's company personnel from assigned living spaces in order to berth evacuees, they shall, as far as practical, be doubled up with personnel attached to their respective departments. Rotation of bunks by watches may be used to provide sufficient berthing spaces for enlisted personnel as well as evacuees.

(b) Where possible, evacuees shall be located in one section of the ship to facilitate handling and control. Evacuees assigned to a particular unit shall be berthed in the same compartment.

(6) GENERAL QUARTERS AND EMERGENCY STATIONS

(a) General quarters stations for evacuees shall be in their assigned berthing spaces.

(b) In the event that emergency stations are ordered, evacuees shall remain in their assigned living spaces until directed to assemble at a topside station to abandon ship. In emergency situations orders shall be given to evacuees over the 1MC announcing system.

(c) The Administrative Assistant shall be in command of evacuees during an abandon ship evolution and shall direct their movements through the designated unit leaders.

(d) The Administrative Assistant shall provide ruction to evacuees on the various alarms for general quarters and emergency stations and the action required.

650.3 PRISONERS OF WAR BILL

a. PURPOSE. To assign responsibilities and provide procedures for handling prisoners of war.

b. RESPONSIBILITY FOR THE BILL. The Executive Officer is responsible for this bill.

c. INFORMATION. This bill applies equally to combatant forces of the enemy and to individuals traveling with an armed force. Individuals following the armed forces of the enemy (such as newspaper correspondents, contractors, technicians, vendors) and the officers and crews of enemy merchant ships, if detained, shall be entitled to treatment as prisoners of war if in possession of proper identification. Prisoners of war are subject to the Uniform Code of Military Justice.

d. RESPONSIBILITIES

(1) THE FIRST LIEUTENANT/WEAPONS OFFICER (OR COMBAT SYSTEMS OFFICER) ASSISTED BY THE CMAA, shall:

(a) Take custody of prisoners, and ensure that they are properly searched, separated, guarded, and deprived of means of escape, revolt, or acts of sabotage.

(b) Take custody and store all arms, ammunition, and military equipment (less communications equipment) in possession of the prisoners.

(c) Prepare muster lists of prisoners.

(d) Have the prisoners photographed for record purposes.

(e) Arrange with the Supply Officer for provision of standard rations.

(f) Arrange with the Wardroom Mess Treasurer and Personnel Officer for provision of bedding and suitable living spaces for both officer and enlisted prisoners.

(g) Prepare identification papers for each prisoner, using description, fingerprints, and photographs.

(2) THE WARDROOM MESS TREASURER AND PERSONNEL OFFICER shall provide bedding and suitable living spaces.

(3) THE MEDICAL OFFICER shall:

(a) Examine all prisoners and provide necessary medical treatment.

(b) Prescribe personal effects necessary for prisoner's health.

(4) THE SUPPLY OFFICER shall:

(a) Provide the standard rations as requested.

(b) Issue items of clothing or small stores as directed by the Commanding Officer or as requested by the First Lieutenant/Commanding Officer of the Marine Detachment.

(c) Provide suitable storage for the safekeeping of valuables removed from prisoners and delivered to his/her custody.

(5) THE INTELLIGENCE OFFICER (IF ASSIGNED) OR COMMUNICATIONS OFFICER shall take possession of all communications-related military equipment and military documents in the possession of the prisoners. All effects and articles of personal use shall remain in the possession of the prisoners, including protective clothing. In particular, the identity card issued to the prisoner under the Geneva Convention relative to the treatment of Prisoners of War of 12 August 1949 shall not be taken from him/her. Badges of rank and nationality, decorations, and articles having a personal or sentimental value may not be taken from prisoners of war. Sums of money carried by prisoners of war may not be taken from them except by order of an officer and only after the amount and particulars of the owner have been recorded in a special register and an itemized receipt has been given, legibly inscribed with the name, rank, and unit of the person issuing the receipt. Articles of value may be taken from prisoners only for reasons of security; and when such articles are taken away, the procedure for impounding sums of money shall apply.

(6) THE PERSONNEL OFFICER shall maintain a list of qualified interpreters aboard.

(7) THE PHOTOGRAPHIC OFFICER shall provide photographs of all prisoners of war as requested by the Commanding Officer of the Marine Detachment.

(8) THE CHIEF MASTER-AT-ARMS shall provide suitable stowage for personal gear, other than valuables, removed from prisoners and delivered to his/her custody.

e. PROCEDURES

(1) Upon being taken, prisoners will be thoroughly searched and immediately delivered to the First Lieutenant/ Weapons Officer (or Combat Systems Officer)/Commanding Officer of the Marine Detachment for safekeeping. He/she shall then be charged with the primary administrative responsibility for ensuring compliance with the provisions of this bill.

(2) Prisoners of war shall be treated with humanity and shall not be subjected to abuse, deprivation, or ridicule. They shall be accorded their rights under existing treaties, conventions, and other valid provisions of International Law dealing with the treatment of prisoners of war.

(3) Pending interrogation for intelligence purposes, insofar as practical, no communication shall be allowed between officer prisoners, noncommissioned officer prisoners, and their personnel. Insofar as possible, prisoners shall be separated individually; or, if this is not possible, they shall be separated by units, and such units or individuals shall not be allowed to mingle at any time.

(4) Prisoners of war aboard a naval unit may be required to disclose only their name, rank and serial number. They shall be interrogated only by a designated, qualified officer and then only for information of a routine nature or when it is believed that the prisoners may volunteer information of immediate operational assistance. No physical torture, mental torture, or any other form of coercion may be inflicted on prisoners of war to secure information of any kind. Prisoners of war who refuse to answer may not be threatened, insulted, or exposed to unpleasant or disadvantageous treatment of any kind.

(5) No member of the Armed Forces of the United States shall be placed in confinement in immediate association with enemy prisoners or other foreign nationals not members of the Armed Forces of the United States.

650.4 STRIP SHIP BILL

a. PURPOSE. To establish policy and procedures for the identification and labeling, evaluation, and eventual removal of hazardous material from ships in preparation for battle as directed in NWP 62-1 (NOTAL) and OPNAVINST 5100.19C (NOTAL).

b. RESPONSIBILITY FOR THE BILL. The Damage Control Assistant (DCA) is responsible for maintaining this bill.

c. INFORMATION. The proliferation of readily-combustible materials, exotic chemicals, fuels and metals, and toxic gas-producing materials aboard ships can cause extreme personnel and ship survivability hazards during battle. Additionally, many materials create splinter and shrapnel hazards under extreme shock conditions associated with major battle damage. The combined effect may seriously jeopardize the survivability of the ship in the event of major damage. This bill assigns responsibilities and duties under the auspices of the Commanding Officer in not only the removal of hazardous material, but also in reviewing items before installation or receipt on board.

(1) DEFINITIONS. The following definitions shall apply for the implementation of strip ship procedures described in this bill:

(a) VITAL MATERIALS. Shipboard materials required for the attainment of the ship's missions regardless of flammability category.

(b) SEMI-VITAL MATERIALS. Shipboard materials important to support, but not absolutely mandatory for, the performance of the ship's mission.

(c) NON-VITAL MATERIALS. Shipboard materials which do not directly support a ship's mission and serve solely as a convenience or habitability function.

(d) EXTREMELY HAZARDOUS MATERIAL. Shipboard materials so readily flammable, toxic, or of such hazardous nature to endanger life or a ship's mission accomplishment or survivability if major damage occurs.

(e) HAZARDOUS MATERIAL. Although perhaps all materials might be construed as hazardous, these materials shall be those which would support or accelerate fires or cascading damage from major battle damage, or when burning would produce highly toxic smoke, vapors, or gases.

(2) EXAMPLES. The vital and hazardous nature of shipboard materials is frequently a subjective evaluation, but the following examples are provided to characterize the general concept of the above definitions:

(a) VITAL, EXTREMELY HAZARDOUS MATERIAL. Explosives, munitions, gasoline for emergency pumps, bulk propulsion fuels and lubricants, emergency medical supplies, essential pyrotechnics, landing force munitions (LFORM), calcium hypochlorite, battery acid, and specialty hydraulic oils and fluids (materials with a flash point less than 100°F).

(b) SEMI-VITAL, EXTREMELY HAZARDOUS MATERIALS. Reserve supplies of the above materials in excess of that actually required for contemplated operations, drum flammable liquids, and some categories of paints, preservatives, and cleaning fluids.

(c) NON-VITAL, EXTREMELY HAZARDOUS MATERIALS. Virtually all such materials are already prohibited from shipboard use by OPNAVINST 5100.19C (NOTAL) and NAVSUP PUB-4500 (NOTAL).

(d) VITAL, HAZARDOUS MATERIALS. Essential publications and troubleshooting documents, mooring lines and towing hawsers, life jackets and gas masks, shoring, etc.

(e) SEMI-VITAL, HAZARDOUS MATERIALS. Essential uniforms, linens, mattresses, paper and supplies for communications processing, essential supplies of rags and lint-free wipes, sanitation supplies, and protective packaging on vital repair parts.

(f) NON-VITAL, HAZARDOUS MATERIALS. All treated wood, approved furniture upholstery, curtains, draperies, all glass, civilian clothing and excess uniforms, acoustic panels, canvas and herculite covers, ship store items, false overheads, paints, and solvents.

d. RESPONSIBILITIES

(1) THE COMMANDING OFFICER shall:

(a) Appoint, in writing, a Hazardous Material Control Program Coordinator following OPNAVINST 5100.19C (NOTAL).

(b) As operational requirements become known, direct the sequential removal of hazardous materials from the ship following Table 6-14. He/she shall make maximum use of shore storage or supply turn-in support facilities when available, but

Operational Constraints	Material Category					
	Vital Hazardous	Vital Extremely Hazardous	Semi-Vital Hazardous	Semi-Vital Extremely Hazardous	Non-Vital Hazardous	Non-Vital Extremely Hazardous
Peace Time						Remove Immediately
Increasing Tensions		Increase safeguards on stowage or shift to sheltered, fire-protected area	Schedule for immediate consumption or remove if possible	Schedule for immediate consumption or remove if possible	Remove to shore storage	Jettison immediately
Battle Preparations		Increase safeguards on stowage or shift to sheltered, fire-protected area	Jettison immediately	Jettison immediately	Jettison immediately	Jettison immediately
Damage Occurring	Provide fire watch, increase safeguards, jettison as endangered	Provide fire watch, increase safeguards, jettison as endangered	Jettison immediately	Jettison immediately	Jettison immediately	Jettison immediately

Table 6-14. Mission-Oriented Hazardous Materials Disposition

shall not hazard the ship in resolution of questions of ship survivability versus cost or replacement problems. When conditions permit, removal and disposal of hazardous materials under these circumstances should comply with applicable environmental regulations and laws.

(c) Make sure that the quantity of hazardous material stocked does not exceed the minimum quantity necessary to satisfy operational requirements.

(d) Issue local instructions or make sure that existing shipboard occupational safety and health or hazardous material program instructions incorporate the requirements of OPNAVINST 5100.19C (NOTAL).

(2) THE EXECUTIVE OFFICER shall coordinate the removal and jettison of those hazardous materials identified for removal from the ship in consonance with the operational requirements and the direction of the Commanding Officer.

(3) THE SHIP/HAZARDOUS MATERIAL CONTROL PROGRAM COORDINATOR shall:

(a) Maintain and review hazardous material survey lists for all ship's compartments and keep the most current versions on active file.

(b) Make sure the DCA is provided a copy of the most current version of the hazardous material survey lists and the material safety data sheets (MSDS) to be kept on file in Damage Control (DC) Central.

(c) Make sure that personnel receive information and training on the safe use, handling, and disposal of hazardous material.

(d) Comply with all requirements and disposal of hazardous materials as required by OPNAVINST 5090.1B (NOTAL), Naval Ships Technical Manual (NSTM) Chapter 593, (NOTAL), and NAVSEA S9593-A7-PLN-010, Shipboard Hazardous Material/Hazardous Waste Management Plan (NOTAL).

(4) DEPARTMENT HEADS shall review and verify the lists of hazardous materials from each of their departmental spaces and certify the vital or semi-vital nature of each item. They shall further make sure that each departmental space receives frequent inspections for additional or subsequently installed hazardous materials.

(5) THE DAMAGE CONTROL OFFICER OR SHIP'S FIRE MARSHALL (if so designated) shall:

(a) Receive and review hazardous materials lists for all ship's compartments and keep the most current versions on active file in DC Central.

(b) Receive and review a copy of the latest MSDS and keep a current master file in DC Central.

(c) Through inspections by himself/herself or assigned assistants, make sure the ship remains free from unauthorized hazardous and all non-vital, extremely hazardous materials.

(d) Make sure all equipment, tanks, and pipes containing hazardous materials are labeled following OPNAVINST 5100.19C (NOTAL).

(6) THE SUPPLY OFFICER shall:

(a) Be responsible for review of all hazardous materials received on board ship of appropriate hazardous category and report hazardous material to the Hazardous Material Control Program Coordinator.

(b) Make sure that hazardous material labels are placed on all hazardous material received through the Navy Supply System before storage or issue on board. OPNAVINST 5100.19C (NOTAL) and NSTM Chapter 670 (NOTAL) provide specific guidance.

(c) Refuse the receipt of extremely hazardous materials without the permission of the cognizant Department Head or Damage Control Officer.

(d) Remove and discard all excess non-protective or unnecessary flammable packaging and dunnage not required for item protection or retrograde requirements.

(e) Review all stock lists in supply stores, subsistence stores, ship's store stocks, and consumable stock for possible elimination of excess hazards.

(f) Make sure that habitability materials conform to approved standards.

(g) Make sure that the quantity of flammable liquids on board does not exceed the quantities authorized by NAVSUP Manual 485 (NOTAL).

(h) Develop and update, annually, a complete inventory of all hazardous material used. Include in the inventory the location, quantity, chemical name or common name, shelf life, and fire code. Ship classes with Shipboard Uniform Automated Data Processing System (SUADPS)/AV207 should use the master stock status and locator list. (Ship classes without master stock computer capabilities shall use the inventory developed for the shipboard spill prevention, control, and countermeasures plan required by OPNAVINST 5090.1A (NOTAL).)

(i) Obtain from the suppliers of the hazardous materials or from the Navy Environmental Health Center information on the hazardous nature of material purchased directly from commercial sources. If the material is considered hazardous, then comply with the safety and health policies in OPNAVINST 5100.19C (NOTAL).

(j) Work in conjunction with the Hazardous Material Control Program Coordinator to determine the safe storage of hazardous material extracting the type of storage code from OPNAVINST 5100.19C (NOTAL) in conjunction with the Hazardous Material Information System (HMIS).

(k) Make sure that MSDS and HMIS data is available to personnel.

(l) If there is a need for hazardous material proprietary or trade secret information, contact the nearest Navy Environmental and Preventive Medicine Unit or the Navy Environmental Health Center.

(7) DIVISION OFFICERS shall:

(a) Make sure that all assigned equipment, tanks, and pipes containing hazardous materials are labeled following OPNAVINST 5100.19C (NOTAL).

(b) Make sure hazardous materials stored in assigned spaces are properly labeled following OPNAVINST 5100.19C (NOTAL).

(c) Make sure division vital and semi-vital materials are properly stowed or protected following NAVSUP PUB-4500 (NOTAL), NSTM Chapter 670 (NOTAL), and NSTM Chapter 079, Vol 2, Section 40 (NOTAL).

(d) On a continuing basis, survey their assigned spaces and identify for each ship compartment all hazardous and extremely hazardous materials contained therein and provide recommended categorization of the materials as vital, semi-vital,

or non-vital. Procedures for shipwide survey of flammable material is in OPNAVINST 5100.19C (NOTAL).

(e) Take immediate action to remove from the ship all unauthorized hazardous materials and non-vital, extremely hazardous materials.

(8) ALL HANDS shall:

(a) Review essential personal articles and clothing needed during wartime conditions; and, when directed, take steps to remove all unnecessary items. All personal items retained must be stored completely in assigned metal storage lockers.

(b) Take steps as directed by competent authority to remove or jettison hazardous materials from the ship.

650.5 TROOP LIFT BILL

a. PURPOSE. To prescribe responsibilities and outline procedures for the transportation of troops.

b. RESPONSIBILITY FOR THE BILL. The Executive Officer is responsible for the bill.

c. INFORMATION. The conditions under which troops are transported will vary with each situation. However, the basic procedures and responsibilities prescribed by this bill shall be considered standard for the transportation of troops.

d. RESPONSIBILITIES

(1) THE EXECUTIVE OFFICER shall:

(a) Organize, supervise, and coordinate all phases of the troop lift.

(b) Obtain a muster list of all troops.

(c) Designate spaces for berthing and living accommodations.

(d) Supervise troops, while embarked, through the Troop or Detachment Commander.

(2) THE WEAPONS OFFICER (or Combat Systems Officer)* shall:

(a) Collect and stow troop ammunition.

(b) Arrange for security patrols of troop spaces.

(c) Assign petty officers to instruct troops in mustering procedures and emergency drills.

*NOTE: These responsibilities belong to the First Lieutenant if a Weapons Officer (or Combat Systems Officer) is not assigned.

(3) THE FIRST LIEUTENANT shall:

(a) Obtain extra life rafts and life jackets as necessary.

(b) Rig additional embarkation stations as necessary and designate stations for boats by number.

(4) THE SUPPLY OFFICER shall:

(a) Provide for messing of troops.

(b) Collect valuables or funds for safekeeping as requested by troops.

(5) THE OPERATIONS OFFICER shall:

(a) Regulate boats and embarkation.

(b) Provide beach guard as necessary.

(6) THE PERSONNEL OFFICER shall:

(a) Make berthing arrangements for troops in designated spaces, providing cots if necessary.

(b) Provide head facilities and arrange for temporary messing as necessary.

e. PROCEDURES. Officers listed in paragraph 650.5d shall execute their assigned responsibilities in carrying out the following procedures:

(1) PRIOR TO EMBARKATION

(a) Provide Troop or Detachment Commander with copies of procedures.

(b) Provide troops with life jackets if troops are to be embarked by boat.

(c) Arrange the details of order for embarkation with the Troop Commander.

(2) EMBARKATION

(a) Muster all troops on board.

(b) Collect ammunition from troops.

(c) Stow extra equipment and gear.

(d) Divide troops into convenient groups for muster and administration.

(e) Familiarize troops with stations for evolutions, berthing, and messing.

(3) MESSING

(a) Troops shall be messed by units.

(b) Personnel shall be assigned to assist in messing details, as requested by the Executive Officer.

(4) WATCHES AND PATROLS

(a) The Troop or Detachment Commander shall establish a 24-hour security patrol in each living compartment which the troops occupy.

(b) The duties of this patrol shall be to prevent smoking in unauthorized places and at unauthorized times and to prevent disorder among personnel.

(5) MUSTERING AND ACCOUNTING FOR PERSONNEL. Muster of troops shall be held three times a day by designated mustering petty officers. Absentees shall be reported immediately to the Troop Commander and the Executive Officer.